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Beth A. Senecal
Western Washington University

Gary (Gary Russell) McKinney
Western Washington University

Joseph E. Trimble
Western Washington University

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The Relationship between Participation in the
Access Program and the Academic Achievement
and Retention of Minority and Non-Minority
First-Year Undergraduates

Report 1993-03

Beth A. Senecal
Gary R. McKinney
Joseph E. Trimble

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All correspondence concerning this report should be directed to the senior author:
2101 Louisiana Street, Lawrence, KS 66046.

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Executive Summary

Fostering the success of students of color and students admitted academically at risk has become an important goal for many institutions of higher education. In order to increase the success of these special student populations, some researchers believe that universities must be proactive in their efforts to help students. In fact, studies indicate that proactive programs are crucial, for it is often the students who need help the most that tend not to seek it. Numerous programs have been implemented to encourage increased academic achievement and retention among minority students and students admitted at higher risk of academic failure. The Access Program at Western Washington University is an example of such an effort.

This study seeks to replicate and expand upon a previous thesis addressing the Access Program. The intent is to analyze the relationship between voluntary participation in Access and two benchmarks of student progress: 1) academic achievement, as measured by cumulative grade point average (GPA) over the first academic year, and 2) retention, as measured by continued enrollment from the Fall quarter of the first year to the Fall quarter following the first year. A survey was also conducted, to obtain qualitative data regarding why students depart from Western Washington University.

Results indicate higher cumulative GPA's and higher rates of retention for students who elect to participate in the Access Program than for those who are eligible, but choose not to participate. Furthermore, minority students who participate in the Access Program are found to be more successful in the above two measures than their eligible minority counterparts who do not participate. However, minority students as a whole score lower on both measures than non-minority students. Prominent reasons for departers to leave the institution were transfer to another school, social/cultural reasons, and financial concerns.

Summary of the Access Program

Development of the Program

In the Fall of 1989, Western Washington University shifted its admissions policy from one of rolling admission to a selective process. Because of this shift, the Access Program was developed and first implemented in the Academic Advising Center for the 1989-90 entering class. Whereas the previous policy had a published minimum high school grade point average of 2.5 (on a 4.0 scale), the new policy ranked all applicants according to a combination of standardized test scores and high school GPA, choosing the incoming class from the higher echelons of applicants. Due to this selective admissions system, the minimum GPA (or the "selection GPA") for the class of 1989-90 effectively became 3.15, substantially higher than the previously required 2.5 (Heins, 1990).

Concern was raised regarding this shift in policy, as it was felt by some within the institution that selectivity would be detrimental to special student populations such as minority students, gifted athletes, and talented student artists, denying admission to students who previously may have been admitted (Heins, 1990). To counteract this concern, some applicants with GPA's below 3.15 were admitted. This was deemed an appropriate action, since the Access Program was developed to address the needs of such students.

Further changes were made to Western's admissions policy for the 1990-91 class, as the Higher Education Coordinating Board instituted the use of "index numbers" -- two-digit numbers derived for each applicant through a mathematical formula which considers both high school grade point average (75% weighting in the formula) and standardized test scores (25% weighting in the formula). Upon implementation of this policy, the Admissions Office staff began to rank applicants competitively on the basis of their individual index numbers.

In an effort to remove some of the ambiguity and local decision making from the admissions process, the HEC Board set a minimum index number for admission of applicants in all state-supported institutions. This minimum is 13 for WWU. According to the WWU Office of Admissions, a 13 index number is approximately equivalent to a 700 score on the SAT combined with a 2.60 high school GPA.

Some flexibility remains in the index number system, however, as the HEC Board allows WWU and its counterparts to devote up to 15% of admitted class size to applicants who do not meet minimum standards. These students should be those whom the schools see as having the potential to succeed although they lack the required minimum numbers. According to Admissions officials, WWU allows very few applicants in this category to be admitted and, like most of its sister institutions, has yet to utilize the full 15% allowance.

It is important to note that each institution using the index number system has the ability to set its own "selection index" -- effectively, its minimum index for selection into the school. Data from the Office of Admissions shows that admission to Western is very competitive. For the 1990-91 class, the average index number of enrolled students was 55. (A 55 index roughly represents a 1000 on the SAT, and a 3.35 high school grade point average, or an 800 SAT and 3.52 GPA.) The middle 50% of these students range from 43 to 67, meaning 25% had index numbers of 43 or below and 25% had index numbers above 67.

For the 1991-92 class, the average index number was 52. (A 52 index roughly represents a 1000 on the SAT and a 3.28 high school GPA, or an 800 SAT and a 3.45 GPA.) The middle 50% for this year ranged from 40 to 65. Obviously, the state-set minimum of 13 falls far below a typical selection index at WWU.

Because of the high entrance data of students admitted to Western, one can assume that the majority of students at Western possess the skills needed to succeed in college. The Access Program, then, cannot be considered one which supports under prepared students or students in need of remedial attention. However, students whose index numbers rank them at or near the bottom of their class are, *in relative terms*, at a disadvantage. The goal of the Access Program is to encourage the academic and personal success of these students so that their full potential may be realized, despite their relative shortcomings.

Determination of Access-eligible pool

Each April, the Academic Advising Center requests from the Office of Admissions a list of admitted applicants with index numbers below the selection index for that year. The list is requested in Spring so that participants may be determined prior to Summerstart, the summer orientation program for first-year

students. Letters of invitation are sent to the full-time first-year students on the list, with targeted participation around 50 students per year. Participation in the program is voluntary.

Characteristics of Access

With overarching concerns of academic achievement and retention in mind, the Access Program was developed with three main goals: 1) To help students develop sound study skills and skills in communication; 2) To develop an educational plan for students commensurate with individual interests and abilities; and 3) To foster student utilization of University resources.

Access students first meet with the Coordinator during Summerstart. After that, they meet for quarterly advising sessions in which the students are assisted in preparing an appropriate class schedule. Arrangements are made to schedule Access participants in classes together, creating an informal support group. Introductory courses such as English or communication are encouraged in the first quarters. The students are given priority registration, to ensure they are enrolled in their selected courses.

In addition, support is given throughout the year for Access participants in the form of tutorial services, review sessions, and workshops on subjects such as study skills and time management. Support is also given through individual appointments with the Coordinator, and outreach to participants who are placed on academic warning or probation. Finally, through enrollment of all participants in University 101, a one quarter seminar course, the program seeks to familiarize participants with the different support services at the University, establishing a base upon which to build success during the first year and beyond.

Minority Students in Access

Since the 1989-90 academic year, the Access program has become increasingly minority in composition. This results in part from increased minority recruitment by Western Washington University. One of the main goals of the University is a commitment to diversification of its student body, as identified in the University's Strategic Plan. The University's minority student population has increased from a fairly consistent level of 4% of the student population in the early 1980's to approximately 10% as of Fall 1992. In fact, of the new first-year students enrolled in Fall 1992, approximately 14% are

minority students. This rate compares favorably to the overall rate of 14.0% for Washington State (1991 figures), as reported by Evangelauf (1993) in the Chronicle of Higher Education (p. A31).

In keeping with this University-wide goal of diversity, the Access Program actively recruits minority first-year students who are among the relatively low-ranking students in their class. When letters of invitation are sent to potential participants, no follow-up is made with students who do not respond, but the coordinator may make special efforts to contact students of ethnic minority heritage. For the 1990-91 and 1991-92 classes, on which this study will focus, minority participants in the program composed roughly 60% of all Access participants. However, due to the increased numbers of minority applicants, and due to the higher percentage of minority students accepted and confirmed in Fall of 1992, the minority composition of Access jumped to 90% for the 1992-1993 academic year.

It is important to note that although minority students may be more heavily recruited for participation in this program, the minority students are not necessarily less academically capable than their non-minority counterparts. In fact, using data from Fall 1992, the average high school GPA of all minority students admitted and confirmed was over 3.00: Black students averaged 3.08, Native American 3.17, Hispanic 3.18, and Asian 3.26. Due, however, to their relatively low representation in the overall population and to the fact that non-minority students averaged a 3.51, the ethnic minority students are still at a *relative* disadvantage.

Findings

The population for this report was comprised of students eligible for the Access Program during the 1990-91 and 1991-92 academic years. Data was collected from Academic Advising Center records, and from the Student Tracking System, maintained by the Registrar's Office, and supplemented by data from the Office of Institutional Assessment and Testing.

For the 1990-91 first-year class, students eligible for the Access Program had admissions index numbers of 36 and below (high school GPA and

standardized admissions scores, e.g. SAT, ACT, etc.); for the 1991-92 first-year class, students eligible for the Access Program had index numbers of 29 and below. Each of the students in this population was a full-time, first-year student at WWU. Each was invited to participate in the Access Program.¹

Academic Achievement

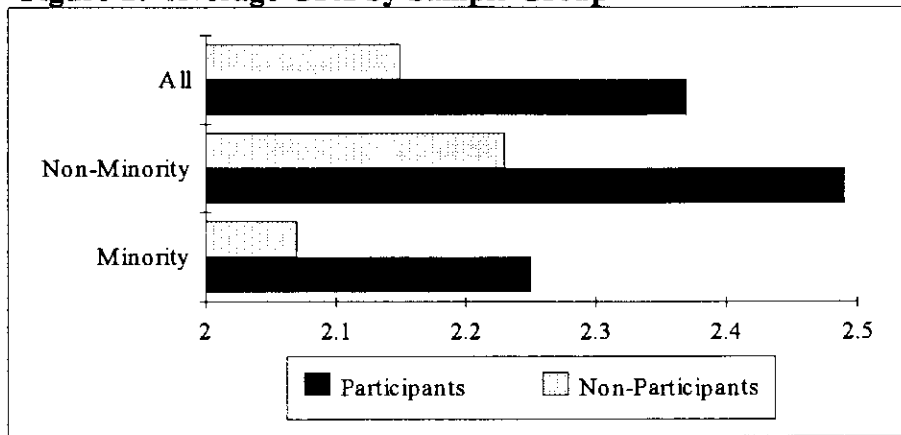
Data describing academic achievement was limited to students within the above population who completed three quarters during their first year--or four if enrolled during summer. This limitation was necessary because a three-quarter cumulative GPA was designated as the best measure of academic achievement during a student's first year. Furthermore, since Fairhaven College's non-traditional S/U grading system did not fit the study's design, Fairhaven students were removed from the academic achievement portion of this study.

The method for establishing sample size in each category (minority participant, non-minority participant, minority non-participant, non-minority non-participant) was to first include all 26 minority students eligible for the Access Program who did not participate. Random samples for each subsequent category were drawn to equal 26. The total sample size was thus 104. The academic index range for this cohort was 14 to 35, and the approximate index average was 25.

Average cumulative grade point averages (GPA's) were calculated for each of the categories represented (minority participant, non-minority participant, etc.). Results indicated that the effect of participation in the Access Program and the effect of minority status was significant. Participants in the Access Program recorded higher GPA's than non-participants, and non-minority students scored higher than minority students in each category. Minority students who participated in the Access Program, however, scored slightly higher than non-minorities who did not participate. This last difference was not statistically significant, but rather indicates that GPA's for the two categories were at best statistically equal. (See Figure 1.)

¹The average admissions index for the entering freshmen class of 1990-91 (Fall Quarter) was 55. The average admissions index for the entering freshmen class of 1991-92 (Fall Quarter) was 52.

Figure 1: Average GPA by Sample Group



Retention Rate

One-year retention rates--the percent of students from a given fall quarter class still enrolled the following fall quarter--were calculated for each category (minority participant, non-minority participant, etc.). Unlike the academic achievement portion of this survey, all students within the study's population were considered. Similarly to the academic achievement section, the method of establishing sample size for each category was to first include all 32 minority students eligible for the Access Program who did not participate. Random samples for each subsequent category were drawn to equal 32. The total sample size was thus 128. The academic index range for this cohort was 11 to 35, and the approximate index average was, again, 25.

Results indicated the retention rate for all participants was significantly higher than that for all non-participants, and that the retention rate for all non-minorities was significantly higher than that for all minorities. Retention rates for minority participants was significantly higher than that for minority non-participants, and for non-participants, the retention rate of non-minorities was significantly higher than that for minorities.

Although differences were evident between minority and non-minority participants, and between non-minority participants and non-participants, these figures were not statistically significant, probably due to small sample size.

For the population of *all* first-year students at WWU during the academic years studied, the fall-to-fall retention rate was 79.8%. For the population of all first-year *minority* students, aggregated, during the same time, the retention rate was 71.2%. It is important to note that both minority and non-minority students who *participated* in the Access Program were able to keep pace fairly well with the overall WWU population in their category. On the other hand, Access-eligible students who did *not* participate in the program lagged considerably behind the overall WWU population in their category. (See Table 1).

Table 1: Retention Rates

Item	Access-Eligible			All First-Year*
	Participant	Non-Part.	Total	
Minority	68.8	53.1	60.9	71.2
Non-Minority	78.1	68.8	73.4	80.8
Total	73.4	60.9	-	79.8

*Fall 1990 and 1991 first-year classes combined

Survey

A telephone survey was conducted in an attempt to determine what factors may have contributed to Access-eligible students leaving WWU. Attempts were not made to speak to former Access-eligible students who were dismissed due to lack of academic good standing. Ultimately, 22 contacts were made. The survey used mostly yes/no responses, but also asked interviewees to list their most important and second-most important reasons for leaving WWU. (In the yes/no section of the survey, students were able to respond to more than one reason for leaving WWU, thus accounting for the number of responses beyond the sample size.)

In the yes/no section, 14 respondents cited "unclear goals" as a reason for leaving WWU; 12 respondents cited "transfer to another school" as a reason for leaving WWU; and 10 respondents each cited "academic disappointment" or "social/cultural" as reasons for leaving WWU.

The category "unclear goals" included two prompts, "not yet ready for college" and "didn't know what to study" as reasons for leaving WWU, and quite a number of respondents listed both reasons for leaving WWU. The

category "academic disappointment" included two prompts, "poor grades" and "difficulty studying" as reasons for leaving WWU, and, again, quite a number of respondents listed both as reasons for leaving WWU.

However, while 14 of the 22 respondents cited "unclear goals" as a reason for leaving WWU, "unclear goals" was listed by only 4 respondents as the most important or second-most important reason for leaving WWU. On the other hand, not only did 10 respondents cite "social/cultural" as a reason for leaving WWU, 7 also cited it as the most important or second-most important reason.

It would seem, then, that Access-eligible students left WWU for rather complex reasons. Because of the complexity of the nature of why students dropout, it appears the best use of the data is to highlight the categories to which WWU offices and personnel may be able to respond. (See Tables 3a and 3b.)

TABLE 3a: Reasons for Leaving WWU

Item	Respondents
	responses
Unclear goals	14
didn't know what to study	12
not yet ready for college	8
Transfer	12
to be closer to home	7
program not at WWU	4
other	3
Academic disappointment	10
poor grades	9
difficulty studying	7
Social/cultural	10
didn't feel s/he fit in Bellingham area	6
cultural/ethnic factors	5
difficulty socially	3
Other	12
micellaneous family/personal reasons	6
not enough financial aid	4
couldn't get desired classes	2

Table 3b: Reasons for Leaving WWU

Item	Most Important	2nd Most Important	Total
Transfer to another school	5	3	8
Social/cultural	5	2	7
Financial	2	3	5
Unclear goals	3	1	4
Academic disappointment	2	2	4
Family/personal problems	2	0	2
Other	3	4	7

The telephone survey also assessed, briefly, students' levels of satisfaction with academic advising while at WWU. Of the 22 former students interviewed, 13 indicated having utilized the Academic Advising Center. This 13 included 11 former Access Program participants, of whom 9 expressed general satisfaction with the Programs advising (81.8%). Two stated they were unsatisfied.

Students were also asked what other forms of academic advising they had received, if any. Of the 11 interviewees who did not participate in the Access Program, 6 consulted family/friends, 5 did not seek advice, and 2 received satisfactory advice from faculty. Of the 11 interviewees who participated in the Access Program, 6 consulted faculty members for advice, with 5 of 6 expressing general satisfaction with the help they received; 4 sought advice from family/friends; 4 did not seek advice; and 1 went to a resident hall advisor.

A final piece of information collected by the survey was whether or not the former WWU students were still in college. Of the 22 interviewees, 18 continued to be enrolled in higher education (81.8%). An additional 3 students were in the process of returning to school in the next year--2 to WWU. Only a single respondent was neither in school nor planning on returning.

Discussion

The most significant findings of this report suggest that an Access-eligible student will be more likely to remain in school if he or she chooses to participate in the program. Findings substantiate a difference between those who receive program benefits and those who do not. Moreover, findings propose that if minority students choose to participate in the Access Program, they may increase their chances of staying in school.

Unfortunately, findings also indicate that even with program intervention, minority students do not stay in school at rates comparable to non-minority students. Although this study did not account for initial differences in variables such as socioeconomic status or family educational background, which may also affect retention and academic achievement, the results of this study propose that minority students who choose not to participate in the Access program may find themselves falling farther and farther behind their classmates: not only may their retention rate be lower than minority *participants*, but also lower than *non-minority non-participants*. The findings warrant more detailed study to identify the underlying factors that contribute to the results.

Survey results, particularly, are helpful in examining the above mentioned retention rates, but retention percentages alone are hollow without knowing *why* the students made a decision to depart, or without exploring ways the University might have prevented the departure. In some cases, of course, reasons students gave for leaving WWU were partially, if not entirely, out of the control of any university office or department. In particular, it appears that WWU did not have a strong chance to retain those who cited transfer as a reason for leaving, as the majority of these students merely wanted to be closer to/farther from home, to enroll in a program not offered at WWU, and/or to participate in another athletic program.

Some students who had social/cultural problems at WWU may not have been easily helped either. First, neither the Access Program nor the University could have substantially helped the students who left WWU because they did not like the Bellingham area. Second, as one Native American student stated, often a minority student at WWU can feel the pull of two conflicting cultures. Despite WWU's provision of social outlets for minority students and support given through programs such as Access, if the home culture has a stronger pull for the student, it is possible that no matter what effort WWU or Access made, s/he would have left anyway.

On the other hand, some of the effect of these social and cultural issues might have been manipulated by the institution, and possibly lessened through the Access Program. For example, as one student phrased it, she left because "there were not enough minorities (at WWU)." To this issue, the administration at WWU has already acknowledged the need to increase its minority student enrollment, and is taking steps to do so. In addition, if the Access Program continues striving to serve an increasing number of minority students, it will be the program's responsibility to help address the adjustment needs of these students, in conjunction with other programs/offices on campus.

That university intervention could affect attrition is, unfortunately, not entirely clear. For instance, the same population that listed "unclear goals" or "not yet ready" for college as a reason for leaving may or may not respond to the most detailed and rigorous of interventions. It is entirely possible that attending WWU and utilizing the Access Program may have actually helped these students clarify their goals, but only the students could help themselves "feel ready." Time away from school, or school at a different level, may have been the best decision for students who are not yet ready for WWU. As evidenced by the high number of surveyed students who remained in higher education, many at the community college level, these students may not have wished to end their collegiate careers, but needed to tackle them from another direction.

Lack of financial aid is another area in which the university's role is a difficult one. Almost one-quarter of surveyed students cited finances as a first or second most important reason for leaving WWU. However, with limited state and federal funds, a university can only do so much to prevent dropout for this reason. Interestingly, not many students cited lack of financial aid or the fact that a job conflicted with a class schedule, yet many stated finances in general as a factor complicating their college education. This may signal that these students did not have a problem with WWU in particular, but merely needed to go to a community college, return to their home state, or attend elsewhere for lower per-credit costs.

It must also be remembered that seventeen students, or almost one-third of the total sample for the survey portion of the study, left the university involuntarily due to low academic achievement. Although outreach is currently attempted for Access participants on academic warning or probation, it is

possible that greater efforts should be made to reach out to all students before they fail, or come close to failing, academically.

Overall, students surveyed left Western Washington University for numerous reasons. It appears that some of the important reasons students cite for their departure are not wholly within the control of the university, or its programs such as Access. However, results also indicate issues which potentially can be improved--such as cultural factors for minority students, or outreach to students in academic difficulty.

Recommendations for Future Research

Dorothy Heins (1990) stated in her initial research on the Access program that her study should be considered a "basis of comparison with the following years of the Access program" (p. 33). Similarly, this study should not be considered the last.

Most needed is a continuation of qualitative research. Obtaining information directly from the participants would seem to be much more valuable than continuing to focus on retention rates and grade point averages. The use of focus groups to study current participants, as opposed to former ones, merits attention in this regard. Moreover, the inclusion of variables such as socioeconomic status, family educational background, etc., would be beneficial.

One recommendation for specific research on this program would be to analyze the effect of the "Support Group" implemented for the 1992-1993 class. This subgroup of Access Program participants received attention on a much greater basis than other participants, meeting more regularly and developing a social as well as academic rapport with one another. Studying the success of this group in comparison to the larger whole of participants would be valuable. This will be especially valuable in the future, as the Coordinator of the Access Program plans to expand the number of participants in these additional activities in the coming year.

Given the increasing minority composition of the program, continued research focusing on minority participants is also necessary. If the Access

program can indeed foster the adjustment and successful achievement and persistence of these students, effective methods by which to do this must be determined. In addition, a study in coordination with other resources on campus for minority students might be insightful. For instance, it may be useful to examine the combined effects of the Access Program, the Multicultural Services Center, and the Ethnic Student Center on minority student success at WWU.

Conducting applied research would be useful, to determine which facets of the program are most beneficial to participants, and which are not. In addition, it would be useful to conduct research to determine whether high school GPA and index numbers are accurately predicting the success of Access-eligible students, or whether qualitative data, such as that recorded in annual CIRP surveys, should be utilized when determining the Access-eligible pool. Finally, a longitudinal study of Access participants would be important, from first contact to graduation.

The successful academic achievement and retention of students admitted at relative disadvantage is crucial. Hopefully, the future will bring sustained and thoughtful research in this regard.

APPENDIX ONE:

Review of Literature

Introduction

A significant amount of research can be collected on the topics of student achievement and retention in higher education. Research on retention is particularly voluminous. The first significant research to emerge came in the early to mid 1970's from now-famous names such as Astin and Tinto. These and many other researchers continue to explore this field, adding to the quantity and quality of measures by which we can assess student success.

In order to adequately address each topic related to this study, the following sections will be utilized:

- Issues related to academic advising will be explored. This will target ways in which academic advising plays a role in students' academic achievement and retention.
- Programs specifically geared to aiding high risk students will be examined. Issues encountered by this population of students will be addressed in order to capture a view of those for whom the Access program was created.
- General retention theory will be addressed, centering around the work of Vincent Tinto. This section will explain his theory, setting it in context among the views of other valuable theorists.
- Research that focuses on reasons why students leave higher education will be explored.
- Retention issues for students of ethnic minority heritage will be examined. Some analysis will be given to each minority group delineated in this study. Important issues which these students face will be examined, and insight will be gained into the lives of minority students in the Access program.

Academic Advising

Research shows that academic advising can be an important tool for increasing the academic achievement and retention of students in higher education. For instance, Habley (1981) calls academic advising "the critical link in student retention" (p. 45), while Tinto (1987) and Crockett (1985) echo this view. Furthermore, a study by Burrell and Trombley in 1983 found that minority-group first-year and second-year students ranked academic advising as "their most important support resource" on campus (p. 123).

Metzner (1989) places academic advising in an institutional context, stating that good advising is "appropriately regarded as one element in a multifaceted institutional effort to reduce student attrition" (p. 436). She points to the indirect effects of academic advising on retention. In her study of 1,033 first-year students at a public urban university, she found that high-quality academic advising had a positive impact on retention, through effecting GPA, student satisfaction, students' perceptions of the future value of a college education, and students' intent to leave the university. Pascarella (1986) supports the importance of considering these influences on retention.

Several different approaches exist for academic advising, with the most restrictive being merely "information dissemination and referrals" (Koerin, 1991, p. 324). Meanwhile, the National Academic Advising Association (NACADA) proposes a broader definition, calling it a developmental process which exists to assist students in clarifying their goals and in developing educational plans to realize those goals (NACADA, 1983).

Ender (1983) outlines several key components for a successful advising program: it must be a continuous process, must be concerned with quality of life issues, is goal-related, establishes a caring relationship between advisor and advisee, advisors serve as good role models, and advisors seek to utilize and connect students with all other student services at a university (Groth, 1990). Metzner (1989) also outlines the multifaceted role of the advisor, stating that an advisor's responsibilities include facilitating student goal-setting, encouraging academic success, establishing a personal bond between the student and college personnel, and coordinating referral to other campus resources. Habley (1981) and Levin and Wyckoff (1987) indicate a student-centered approach to advising leads to the highest quality of interaction between an advisor and a student.

Popular in the literature is an "intrusive" advising approach. Such an approach is an active one, which assumes that it is better to make efforts to contact students than to wait for them to initiate the contact. Western Washington University's Access Program qualifies as an intrusive advising program. Glennen (1976) claims that an intrusive approach is essential in an academic setting. The need for intrusive advising may stem from findings that show students most in need of help are often the most reluctant to seek it out (Glennen & Baxley, 1985). Lyons (1985) talks of "preventative" programs as being most helpful in the case of these students: "The implications are clear that a positive, preventative, intensive counseling program has a tremendous payoff" (p. 8).

Some researchers take intrusive advising one step farther, stating that they believe some academic advising programs, especially those focused on high risk students, should not only be intrusive, but also mandatory (Higbee & Dwinell, 1992). Ender, citing the advisor's role as that of an educator, states that "regular and continuous" contact between advisors and program participants is essential (1987, p. 375).

Although most reports are positive, Astin (1985) stated that academic advising is "one of the weakest areas in the entire range of student services" (p. 165). Koerin (1991) explains that reviews such as this often result from a "lack of consensus on what advising is and should be" (p. 324). She states that key components of effective advising programs such as advisor training, intrusive advising, and special needs advising are not in place at many institutions (Koerin, 1991). Further, Koerin (1991) explains that academic advising is affected by institutional size and complexity, the diversity of student populations and, maybe most importantly, inadequate reward structures which discourage strong advising, particularly from faculty members. She proposes that if any academic advising program is to work, it must be related to institutional priorities and must be viewed in line with institutional goals that receive broad support.

Programs for High Risk Students

Recent years have brought a changing population of students to the campuses of American colleges and universities. Researchers document the increasing number of ethnic minority, part-time, first generation, academically underprepared, and older students, as well as students from lower

socioeconomic status and students with disabilities (Higbee & Dwinell, 1992). Each of these student groups is termed "high risk" in the literature.

Some researchers feel that it is a university's responsibility to provide programming which fosters the success of students in these groups, as the probability of their success in higher education is lower than that for other students (Higbee, 1989). Glennen and Baxley (1985) state this point very clearly: "If high risk students are allowed continued access to higher education and continue to be a focus of recruiting efforts, then institutions should provide services to reduce these students' attrition and improve the probability that these students will succeed" (p. 14).

Researchers seem to be in agreement on some aspects of programming for high risk students. For instance, many cite the need for early identification of high risk students, as most of the attrition among these students occurs in the first year of college (Ratcliff, 1991). Also, as stated earlier in this review of literature, some researchers believe that participation in programs for these students should be mandatory (Higbee, 1989).

One reason for this focus on mandatory programs comes from agreement among researchers that students in high risk categories typically will not voluntarily ask for assistance (Glennen & Baxley, 1985). For example, in his 1980 study, Friedlander found that less than 25% of the low-ability students sampled had sought assistance from an academic support program. In addition, a study by Richey and Lewis (1986) suggests that some students will not "identify their own deficiencies until they have built a poor academic record" (p. 29).

Researchers are not always in agreement regarding the best ways in which to predict the success of high risk students. Generally, most research has stated that academic statistics such as high school GPA and standardized test scores are the most reliable predictors for students in higher education (Ratcliff, 1991).

However, many researchers report that these traditional academic variables are not as accurately predictive for students in high risk categories. White & Sedlacek (1986) propose, based on instruments created in Sedlacek's prior studies, that non-cognitive variables such as positive self-concept, successful leadership, the existence of a strong support person, and the ability to understand and deal with racism are more predictive of the academic success of

high risk students than are traditional measures such as GPA and test scores (White & Sedlacek, 1986). Other researchers display similar findings. Gerardi (1990) found that academic self-concept, or the student's perception of his/her own academic ability, was more predictive of academic success than traditional academic variables. This finding echoes work by Chickering (1969). In his discussion of student development, Chickering stated that for high risk students, developing a "sense of competence" is essential (p. 20).

Abrams & Jernigan (1984) found that for participants in an Eastern Michigan University program called PASS (Promote Academic Survival and Success), willingness to seek assistance from teachers or tutors was the most accurate predictor of their first semester GPA. High school GPA and test scores were found to be unreliable predictors of academic success for this population. As the authors point out, these findings are somewhat disconcerting, as they report that the factor found to be most predictive of success is unknown until after the student begins college (Abrams & Jernigan, 1984).

Nisbet, Ruble, & Schurr (1982) state that traditional academic variables can be useful for identifying *who* are high risk students, but that these traditional variables are not useful in identifying *who within* that group of students will be successful. These researchers found that, although high school GPA was the best predictor for the general population, this was not the case for high risk students. Richey and Lewis (1986) echo this finding. Furthermore, Nisbet, et.al. (1982) found that students with the ability to control their fear of failure and examination anxiety, and those who recognize the importance of effort in attaining success are the most likely to succeed.

These research findings have important implications for program planning by student services administrators. For instance, LaRose and Roy (1991) state that programs designed to aid high risk students should help students develop appropriate study skills, formulate realistic academic goals, promote effective interaction with peers and faculty, and help control feelings of anxiety. According to these researchers, such programs should also help the student assess his/her willingness to succeed in school--is the student in college because he/she wants to be, or are outside influences causing undue pressure?

Wagner and McKenzie (1980) and Richey and Lewis (1986) add oral and written communication to the list of skills to be fostered in programs for high risk students. To this end, Cooper and Franke (1992) encourage early

introduction to composition courses. Landward and Hepworth (1984) stipulate that successful programs are clearly structured, last for at least eight weeks, are content-oriented, offer empathy, warmth, and genuineness, and are appropriately styled to students' needs. Ratcliff (1991) makes a related point, that programming should not be broad, but should focus specifically on student needs.

Some specific, programmatic ways in which to focus on student needs are detailed in the literature. One that is often discussed is an orientation for students to the different services available to them. This orientation, claim some researchers, will help the students negotiate the bureaucracy that often seems overwhelming to them (Wagner & McKenzie, 1980). Also, the student may feel more comfortable and accepted in a strange new environment (Gordon & Grites, 1984). Often, a seminar course format is employed for this orientation, sometimes called "University 101" (Gordon & Grites, 1984). This orientation also can be held during the summer before students enroll in classes (Ackermann, 1991).

Another program component mentioned in the literature is Supplemental Instruction (SI). SI was developed by the University of Missouri-Kansas City Center for Academic Development (Johnson, 1990). Instead of targeting high risk *students*, SI focuses tutoring services on high risk *courses*, or courses in which first-year students traditionally have difficulty. SI has been reported to reduce attrition and increase academic achievement in high risk students (House & Wohlt, 1990). SI qualifies as a proactive service, as previously discussed, because schedules for tutoring are set early in the semester, allowing students to obtain help before they encounter great difficulty (Blanc, et.al., 1983).

Programs utilizing the above components have been analyzed in the literature. Most studies were conducted to test the program's effectiveness in increasing students' academic achievement and/or retention, and most report positive results (Ratcliff, 1991).

The Tinto Model

Although a great deal of research has been conducted on student retention in higher education, one of the most widely documented theories was formulated by Vincent Tinto in 1975, with later revisions in 1982, 1987, and 1988. His model (found in Appendix Two), actually deemed a model of student departure, gave credence to a field of research previously lacking in theoretical

base. The longitudinal model explains the forces which influence a student's higher education experience, resulting in a decision by the student to stay in school or to depart. According to Boyle (1989), Tinto's model has "withstood careful scrutiny from the profession and has become accepted as the most useful for explaining the causes of student departure from higher education" (p. 290).

Tinto's research is specifically geared toward traditional age undergraduate students at a four year, residential university. Although not addressed herein, it should be noted that in his 1982 document, Tinto acknowledges that persistence patterns may differ among two year and four year institutions.

Tinto (1982) says his theory is mainly concerned with distinguishing between dropout as academic failure and dropout as voluntary withdrawal. In doing so, his model was meant to investigate the complex manner in which the systems of an institution impact student retention. He makes the point that although the model addresses individual student characteristics, the intent of the model was not to focus on them, but to see how they "interfaced" with the academic and social systems of the university (Tinto, 1982, p. 688).

Tinto's theory builds on Spady's (1970) work which interprets a sociological explanation of suicide as a foundation for studying student persistence in higher education. Spady (1970) theorized that just as a lack of integration with society can cause a person to commit suicide, a student can make a decision to end his/her college enrollment if s/he does not fully integrate into the social and academic systems of a university.

Tinto's theory is also based on Arnold Van Gennep's work on rites of passage in tribal societies (Van Gennep, 1960). Van Gennep surmised that individuals progress through three phases when moving from membership in one group to another: separation, transition, and incorporation. Tinto saw these passages as a way in which to describe the longitudinal character of student departure from higher education. For example, Tinto says students beginning college need to separate from communities of the past in order to become fully incorporated into campus life. After separation occurs, transition into the "adoption of new norms and patterns of behavior" begins (Tinto, 1987). Tinto proposes that during these separation and transition stages, a great deal of voluntary withdrawal from college occurs when students cannot properly adapt. Finally, however, the successfully integrated student becomes comfortable with his/her new way of living, and becomes incorporated into college life.

The model begins with an assertion that *pre-college characteristics* of three types will influence a student's commitment to persisting toward a degree: family background, individual attributes, and pre-college education. Family background characteristics include socioeconomic status, parent's level of education, the quality of the student's relationship with his/her family, and the interests and expectations of a student's parents. Individual attributes relate to the student's personality, attitudes, and his/her academic ability. Finally, pre-college education refers to previous academic achievement as measured by grades and test scores, as well as the characteristics of a student's high school (von Destinon, 1988).

This first portion of the model was validated by Terenzini and Pascarella in 1978, yet their study's conclusions state that "what happens to a student *after* matriculation may be more important in subsequent voluntary attrition among freshmen than are the attributes the student brings to college" (p. 362). Nelson, Scott & Bryan (1984) also studied the usefulness of pre-college characteristics. They found these characteristics, such as prior academic achievement and demographic characteristics, accurately predicted first-year student retention. However, similar to Terenzini & Pascarella (1978), Nelson, et.al. (1984) found that when both pre-college characteristics *and* early in-college experiences were utilized as predictors, accuracy was increased. In addition, these researchers state the importance of early intervention for higher risk students, supporting a proactive approach for institutional retention efforts.

Also included early in Tinto's model are measures of a student's *intentions, goals, and level of commitment* to higher education. Examined first in these measures is goal commitment. Goal commitment refers to a dedication to achieving the highest level of education sought. It also relates to the level of importance a student attaches to attaining a college degree. Cope and Hannah (1975) found that of all personal attributes, "commitment to either an academic or occupational goal is the single most important determinant of persistence in college" (p. 19).

Second in this portion of the model is institutional commitment. This is the level of student intent to reach his or her goals at the current institution (Bean & Metzner, 1985). Finally, included in this section of the model are a student's expectations of college. Related to this, Thomas & Andes (1987) found that persisters have more realistic expectations for college than did students who dropped out.

It is implicit that a student arrives at college with a certain initial level of these commitments, which are influenced by his/her pre-college characteristics. Stage (1989) states that goals and a student's initial level of commitment are included in the model "to help specify the psychological orientations the individual brought to the college setting" (p. 387).

According to Tinto's model, changes in a student's commitments may occur as the student progresses through the academic and social systems of the university. Therefore, a measure of the student's levels of commitments are again included in the model after the student has gained experience at the institution. At this time, the student re-evaluates his/her goals and intentions, and arrives at a new level of commitment to that institution in particular and to higher education as a whole.

At its core, the model proposes that the process of persisting to a degree can be viewed as a longitudinal process of interactions between the student and the *academic and social systems* of the university. Tinto (1975) theorizes that as a student progresses, s/he will develop a certain level of integration with each of these systems. Integration can be thought of as a feeling of comfortableness or success; it is the student's perceived fit within the social and academic realms of university life. Satisfactory experiences within the university's academic and social systems will lead the student toward a high level of integration and, therefore, to a decision to persist in higher education. As Tinto (1975) stated, "the higher the degree of integration of the individual into the college systems, the greater will be his (her) commitment to the specific institution and to the goal of college completion" (p.96). Williams (1986) adds to this, with a definition of student-institution "fit":

When student goals, needs, interests, values, and expectations are adequately met within the campus environment, then from the student's perspective, a certain degree of fit or congruency exists. Likewise, when a student's academic or social abilities seem to mesh well with campus requirements, the fit or match between student and institution is also believed to exist (p. 36).

Academic integration can be assessed through a number of variables: grade point average, expected grade point average in upcoming academic periods, amount of informal contact with faculty at the university, conversations with peers on academic topics, levels of academic activity (such as hours of

study per week), and the degree of congruency between the intellectual development of the student and the prevailing intellectual climate of the university (Pascarella & Chapman, 1983).

Portions of Tinto's concept of academic integration have been separately researched. For instance, Pascarella & Chapman (1983) reported that academic achievement or expected academic achievement in college, as seen through GPA, has substantial impact on student persistence. In addition, Ferguson (1990) found informal contact with faculty/staff to be a significant factor in student persistence. Interestingly, Tinto (1975) did not originally place interaction with faculty and staff as elements of academic integration, but placed this interaction as an influence only on social integration. However, in a 1982 addendum to his work, Tinto recognized that informal interactions with faculty and staff can affect students in their academic adjustment as well.

Social integration is defined as successful experiences in the following areas: peer group interactions, extracurricular activities, interactions with faculty and staff, and residence life (Tinto, 1975). In addition to the researchers who acknowledge the impact of faculty and staff interacting with students, several other researchers validate elements of Tinto's concept of social integration. For instance, Christie & Dinham (1991) support the importance of college residence and involvement in extracurriculars. Similarly, Pascarella & Chapman (1983) state that residing on campus is very helpful for social integration, especially for students from low socioeconomic levels.

Work by Astin (1985) parallels that of Tinto, and also supports Tinto's concept of social integration. Astin states that the more a student is involved in his/her education, the more likely the student is successful. This would seem to affirm the importance of successful involvement with faculty/staff and in extracurricular activities. Finally, as will be shown in a later section, many researchers of minority students in higher education point to the importance of their comfort in the social realms of campus life.

The final element that is introduced in Tinto's model is the impact of *external influences* on a student's persistence decisions. Tinto (1987) views the impact of external forces as secondary to one's experiences within the college, yet these forces can be powerful. Externals include financial matters, pressures or support from families and off-campus friends, work commitments, or other forces the student experiences from people or events external to the university.

Lack of support can be detrimental to a student's persistence in college. First generation students are a good example of this. Many researchers state that these students tend to have a difficult time adjusting to college. In part, this is due to the lack of support received from their parents, as the parents are not knowledgeable, and sometimes even frightened, of the college environment (Eberhard, 1989). Lack of support from friends can also be harmful for a student. Christie & Dinham (1991) found that when a student has many friends from high school who do not share their commitment to higher education, the student is less likely to persist.

Finally, financial concerns, such as lack of financial aid and/or demands from an outside job can harm a student's ability to remain committed to school as well (Bean & Metzner, 1985). In fact, Tinto makes a point to state in his 1982 work that his original model did not adequately reflect these financial considerations, but that they have great influence on student persistence decisions.

A great deal of general research has also been conducted on the concepts in Tinto's model. Terenzini & Pascarella (1977) state that social and academic integration were "approximately equally important" (p. 39) in student persistence decisions, yet they suggest that social integration is of somewhat greater importance than academic. Tinto (1987) seems to affirm this statement, saying that of all experiences a student has in college, the "absence of contact with others proves to matter most" (p. 65) in a decision for departure. It should be noted, however, that other researchers such as Pascarella & Chapman (1983) have reported academic integration to be a more powerful influence. In particular, Fox (1985) found that academic integration was more important for some minority and other higher risk students.

Some researchers have investigated the interplay between various facets of Tinto's model. Chapman & Pascarella (1983) found that interactions *in* college were not independent of certain *pre*-college characteristics. For instance, they found that as the age of the student increases, the need for social integration becomes less prominent. Also, these researchers state that students with lower socioeconomic status were less likely than others to be involved socially with faculty and other students, but more likely to approach faculty regarding academic matters. Relatedly, Baker & Siryk (1980) found that a student's adjustment patterns during college were closely correlated to patterns of adjustment which students used prior to college.

Aitken (1982) proposed a mathematical model with which to explain student retention. His model echoes Tinto's, stating that direct influences on retention come from a student's satisfaction with the academic program, satisfaction with the living environment, the student's academic performance, the level of involvement in extracurriculars, and external factors.

In his 1987 work, Tinto states that "a person may perform more than adequately in the academic domain of the college and still come to leave because of insufficient integration into its social life" (p. 107). Researchers have investigated such "compensatory relationships" among variables in Tinto's model (Stage, 1989, p. 386). For instance, Pascarella and colleagues found that academic integration had stronger influences on persistence when levels of social integration were low. The reverse was also found to be true (Pascarella & Chapman, 1983). In addition, the following relationships were found by Pascarella & Chapman (1983): commitment to the institution made up for having few campus friends; involvement in social activities most helped students with low commitment toward graduation; and high levels of commitment compensated for low levels of academic achievement.

Reflecting on his model, Tinto (1987) offers suggestions for its application to successful retention programs. He lists six principles by which to govern these programs:

- Institutions should ensure that new students enter with or have the opportunity to acquire the skills needed for academic success;
- Institutions should reach out to make personal contact with students beyond the formal domains of academic life;
- Institutional retention actions should be systematic in character;
- Institutions should start as early as possible to retain students;
- The primary commitment of institutions should be to their students;
- Education, not retention, should be the goal of institutional retention programs (p. 138-140).

Finally, this landmark researcher admits that no one theory can adequately explain everything regarding student retention in higher education.

Why Students Leave Higher Education

Initial research in student retention called anyone who left higher education a "dropout." Today, this phenomenon is much more complex. Some

students begin their college career without aspirations for a degree. Many others will transfer between institutions, and many students attend part-time, coming in and out of higher education. Tinto (1987) defines several types of departure from higher education:

- institutional departure, or departure from individual institutions;
- system departure, or departure from the entire system of higher education;
- institutional transfer, or the departure from one institution to attend a second one; and
- stopout, or temporary departure from higher education.

Tinto (1987) states that these different modes of exit from higher education "makes the estimation of rates of student departure, institutional and system, a very difficult task at best" (p. 9). He estimates that approximately only "44% of students will persist via continuous enrollment in their institution of initial registration" (p. 15).

It is important to consider that a student's departure from higher education should not always be viewed negatively. Tinto (1987) states that "leaving can be educational for individuals in the same way that education can be the key to their staying" (p. 187). He offers that leaving college does not necessarily mean an individual will not partake in other forms of higher education. He seems to support the belief that learning is lifelong, no matter if it is within the structure of a college or university, or in other forms.

As previously mentioned, Tinto's original model (1975) distinguished between voluntary withdrawal and academic dismissal. Tinto (1987) estimated that "10-15% of all institutional departures arise because of academic failure" (p. 83). Whereas he says academic dismissal is most closely related to academic performance, voluntary withdrawal is related to the student's level of congruency in both the academic and social systems of the institution.

Academic dismissal is one reason why students leave higher education, but it is not as complex a phenomenon as is departure for other reasons. Researchers have identified many reasons why students leave college today. Very prominent are personal reasons, or those unrelated to the college or university attended. These personal reasons include sickness or injury, family responsibilities, unclear personal goals, a need for a break from school, and other personal reasons (Ratcliff, 1991).

A second major grouping of reasons for voluntary student withdrawal regards financial concerns. Students reported lack of financial aid, low financial support from parents, and difficulty juggling classes and jobs (Keller & Rollins, 1990).

Pascarella and Chapman (1983) found that few variables that significantly affect student attrition are found to be manipulatable by the institution and its systems. However, some reasons cited in the literature can be more closely attributed to the institutions than can personal and financial reasons. For example, some students report an inability to register for their desired classes or dissatisfaction with the academic program (Chaney & Farris, 1991). Others report dissatisfaction with their academic progress or lack of adequate study skills (Chaney & Farris, 1991).

Still other students cite problems adjusting to the college or university environment: socially or academically; because of the location of the institution; or because of cultural factors, especially for minority-group students (Chaney & Farris, 1991). Others admit they simply were not ready for college yet, or they felt they did not know what career to pursue (Tinto, 1987). Final reasons fall into two categories: the student finished his/her objectives (Chaney & Farris, 1991), or they wished to transfer to another institution (Keller & Rollins, 1990).

To summarize, students withdraw from higher education for a variety of reasons. Most prominent are academic dismissal, personal and financial reasons, dissatisfaction with academic procedures or programs, or incongruity with the social or cultural environment.

Minority Student Retention

Tinto postulates that minority students may experience a difficult time persisting in college due to that fact that the values and norms of the collegiate environment, particularly on a predominantly White campus, can be radically different from that to which they are accustomed. Loo and Rolison (1986) agree with this point, stating that minority students often feel alienated from the campus community.

Steward, Germain, and Jackson (1992) affirm that college experiences may be different for minority and non-minority students. In addition, they show differences exist among particular minority groups, such as between

Hispanics and Blacks. They underline the importance of "uniquely addressing each racial and ethnic group" (p. 155). Saunders and Ervin (1984) reiterate this point, yet they caution against stereotyping: "While generalizing about racial minorities as a group tends to obscure significant areas of uniqueness...general conclusions can be drawn about minorities immersed in a majority environment" (p. 272).

Indeed, college and university administrators must be wary of stereotyping students. Not only should differences be considered between groups but also within groups. In other words, although commonalities may exist between students of similar ethnic origin, each student should be seen as an individual. Burrell and Trombley (1983) address this point when discussing suggestions for advisory interactions with minority students:

These guidelines do not imply that all minority students act alike or have the same needs. What they do imply is that the sociocultural background of minorities differs from that of most White students. It is imperative that advisors recognize minority students as individuals...(p. 126).

Students of Hispanic origin are particularly prey for stereotyping, as the label "Hispanic" covers so many different groups. Differences in these groups are evident when considering data from the Bureau of the Census. 1992 figures show that as of 1991, the percent of the overall U.S. population who had completed four years or more of college was 21.4%. The percentage for Whites was 22.2%. Meanwhile, the percentage of Hispanics with four or more years of college was reported to be 9.7%. However, when ethnic groups under the "Hispanic" umbrella are examined, marked differences are seen, and in some groups, college attainment rivals that of Whites. The percentage of adults who had completed four years of college or more were: 18.5% for Cubans, 10.1% for Puerto Ricans, 6.2% for Mexican-Americans, and 15.6% for an "Other" Hispanic category (Bureau of the Census, 1992). Obviously, to make assumptions for Hispanic students as a whole would be dangerous.

Ponterotto (1990) claims that the first step in improving the climate for minority students on campus is educating the campus community regarding ways in which minority students currently encounter difficulty. With the concepts of education and concern for the individual in mind, it is helpful to examine views presented in the research regarding minority college students in general, and specific ethnic groups in particular.

As mentioned previously, Loo and Rolison, in a 1986 study, state that minority students on predominantly White campuses often feel alienated from the campus community. They cite two reasons for these feelings of alienation: a) the cultural dominance of White, middle class values on campus which pressure students of color to conform and reject their own beliefs; and b) ethnic isolation, which results from being a small proportion of the total student body.

Steward, et.al. (1992) also address the concept of alienation. Referencing Tinto's model, they term minority students' alienation as a form of malintegration. They postulate that this malintegration is composed of a) powerlessness, or a feeling of having no control; b) normlessness, or the loss of values that give purpose to life (which may result from the conflict between traditional values and new ones presented at the university); and c) social isolation, or feelings of loneliness and separation.

Studies seem to indicate that African American students encounter these feelings of alienation to a greater extent than students from other minority groups. Suen (1983) found that Black students scored very high on measures of social estrangement, which caused their feelings of alienation. Relatedly, Galicki and McEwen (1989) cite that it is essential for Black students to establish strong peer associations. Smith (1981) reports that feelings of alienation and loneliness were the greatest causes of attrition in the Black students he studied. He attributed these feelings to the "hostile" (p. 304) environments of predominantly White institutions, created by overt and subtle acts of racism and discrimination.

It is important to note that the alienation which Black students feel in these studies is due to the fact that they are attending predominantly White institutions. Other research has pointed out that Blacks attending predominantly Black institutions are more successful in persisting, are more satisfied, and do not experience intense isolation (Galicki & McEwen, 1989).

Hispanic students do not seem to encounter the intense isolation which African American students feel. Rather, their problems seem to center on academic integration into the university, and coping with financial concerns (Nora and Rendon, 1988). Native American students, who have achieved the "lowest educational levels among all racial minorities" (Lin, LaCounte, and Eder, 1988, p. 8), seem both to struggle academically and to perceive hostility and a sense of isolation on campus (Lin, et.al., 1988).

Loo and Rolison (1986) offer that it is possible for a minority student to feel alienated from the larger community yet become well integrated in "his or her own ethnic subculture" (p. 60). Tinto refers to these subcultures in his 1975 publication, yet does not develop the issue fully. Loo and Rolison (1986) frame their work as a modification of Tinto's theory, offering that social integration for minority students can be assessed in terms of subcultures as well as with the entire campus community.

Attinasi (1989) also found the existence of campus subunits, stating that students will attempt to downsize the social and academic environments, especially at a large university, so that they can more effectively deal with them. Murguia, Padilla, and Pavel (1991) offer that colleges and universities should encourage these "ethnic enclaves" (p. 436), arguing that they are a naturally occurring part of campus ecology, and that they have the potential to help a minority student integrate into campus life. Tinto (1987) seems to assert this opinion as well, as he states:

The greater the variety of locally available subcultures or communities on campus, the greater the likelihood that a greater range and number of persons will be able, if they so desire, to become integrated and establish competent intellectual and social membership while in college (p. 123).

Smith (1981) and Rice and Alford (1989) agree with this assertion, with the latter researchers proposing that a formal unit of the university be established and maintained to address the concerns of these subcultures.

The research seems to show that Asian American students thrive in their established subcultures. Nagasawa and Espinosa (1992) explain that a subculture group for these students "mimics the family by providing its members an ethnically supportive system"...(p. 139). The Asian student subculture, according to these researchers, emphasizes the importance of education while in college; it is not merely social.

When addressing a minority student's ability to negotiate the college or university system, Maynard (1980) references an often experienced dual culture conflict:

...students are frequently placed in conflict when required to conform simultaneously to university standards and to family and cultural peer group expectations. Such expectations can be contradictory, so adjustment to one set of requirements makes adjustment to the other more difficult (p. 400).

Attinasi (1989) references this dual culture conflict for Mexican-American students. He states that significant persons in these students' lives, such as family and friends, create a pull on the student that he or she must manage in tandem with his or her life at college. Other researchers affirm that family pressures are high for Hispanic students (Sanchez, Marder, Berry & Ross, 1992). Because of these influences, Attinasi states that for Mexican-American first-year students, the extent to which their social integration influences persistence is the extent to which the student is able to manage his or her environment. In other words, the Hispanic student's ability to simultaneously manage both his or her familial culture and the demands of the collegiae culture is paramount.

Traditionally-oriented American Indian students also encounter this dual culture conflict. Tijerina and Biemer (1988) point out an interesting problem for these students. The authors state that the closeness of tribalism is paradoxically "both part of the problem and part of the solution" (p. 89). That is, families and tribes can give these students a great sense of belonging and support for their efforts, yet tribalism can heighten a student's "sensitivity to being excluded from a group" (p. 89). Hornett (1989) proposes that American Indian faculty and staff help the students develop "cultural counterpoise" (p.12), or an attitude in which a balance between their two identities can be found: a successful student in a predominantly White environment, and a person who retains his or her own cultural values.

Often, integrating into the academic realm of college is also difficult for minority students. Sedlacek and Brooks (1976) developed a unique view on this aspect of persistence in higher education. These researchers offer that non-cognitive variables such as positive self-concept, realistic self-appraisal, understanding of and ability to deal with racism, preference of long-term goals over immediate or short-term needs, the availability of a strong support person, successful leadership experience, and demonstrated community service all will be related to the success of Blacks at predominantly White institutions. Tracey and Sedlacek (1984,85) add that familiarity with academic requirements and demands is also related. These researchers claim that these non-cognitive

variables can be more predictive of minority student success than traditional measures of academic skill.

Frequently, due to their differing culture and low representation on campus, minority students are treated as somewhat of a curiosity. Madrazo-Peterson and Rodriguez (1978) cite that this most often happens in the classroom, when instructors may single out students of color for their viewpoints. Often, these students are given the impossible task of representing their entire race or ethnic group. In order to prevent difficult experiences such as these, colleges and universities need to offer faculty and staff members who are sensitive to these issues.

Research shows that minority students feel the need for a greater number of faculty and staff role models on campus, and that they prefer to go to professionals of color for advice and encouragement (Sanchez, Marder, Berry & Ross, 1992). In addition, some research also finds that certain minority students are reluctant to utilize campus resources such as advising and counseling (Sanchez, et.al., 1992). According to these researchers, in some cases this can be due to the low number of professionals of color.

In other cases, minority students have difficulty negotiating the system because they are more likely than Whites to be first-generation college students. Although York-Anderson and Bowman (1991) state that some researchers have found parental education to be irrelevant in a student's life, many researchers claim attention to first-generation students is significant in the retention of minority group students (York-Anderson & Bowman, 1991).

These latter researchers explain that first-generation college students do not have the luxury of seeking parental advice on the college experience, and many have built-in fears of the system due to their family's inexperience. In addition, parents of these students, due to these fears and a lack of knowledge about college, will not be able to lend appropriate support to their sons and daughters. Rather than "go it alone," many students choose to drop out. Researchers such as Falk and Aitken (1984) cite the need for colleges and universities to provide special support for first-generation students, and to involve families in their student's education, educating them about the process and hopefully gaining their support.

First generation status is particularly typical for American Indians and some Hispanics (Rendon and Nora, 1988). Pounds (1989) says many Blacks in

today's higher education institutions are also first-generation students. One minority group that is not likely to be composed of first-generation college students is Asian Americans. Asian American students seem to be more successful in persisting toward a degree than other minority groups. According to Nagasawa and Espinosa (1992), Asian Americans are "the best educated ethnic group of all Americans, including Whites" (p. 137). Asian American students are not without their obstacles, however. As other minority group students do, Asian American students experience overt and subtle discrimination. According to Hsia (1988), they also battle a myth of being the "super student" (p. 94), which places extra pressure on their college experience.

As mentioned previously in this review of literature, many researchers believe the first year of college is the most critical for the retention of students. This is true for minority students as well. In fact, in their interviews with 125 students from the Minnesota Chippewa Tribe, Falk and Aitken (1984) reported that 43% had dropped out before completing one year of college. In her study of African American students, Robinson (1990) had similar findings. Of the 386 students she studied, 248 did not graduate. Of the students who withdrew, 54% left before their first year. In addition, a total of 74% of all withdrawing students studied left after the first and second years.

Implications for student programming can be drawn from research on minority students. For instance, Ackermann (1991) cites the importance of orientation programs which will introduce underrepresented students to their new environment. Clayton (1982) adds that advising services on campus should be proactive for minority students. Credle and Dean (1991) also cite the need for outreach to minority students, indicating the effectiveness of mentors and support groups.

As previously mentioned, some researchers believe that minority students would be better retained if faculty and staff of color were present in greater numbers on campus, and if ethnic student groups were fostered and maintained. Rice and Alford (1989) also encourage the establishment of an Office of Minority Affairs, to formally address minority student concerns within the university structure. Finally, many researchers state that an accepting, welcoming campus climate must be established. They cite the need for a pervasive, long-lasting commitment to minority student success, starting with the highest levels of administration (Lin, et.al., 1988).

Summary

As stated at the onset of this chapter, research regarding student academic achievement and retention in higher education is voluminous. To summarize, it will be useful to revisit the five sections which comprise this review of literature.

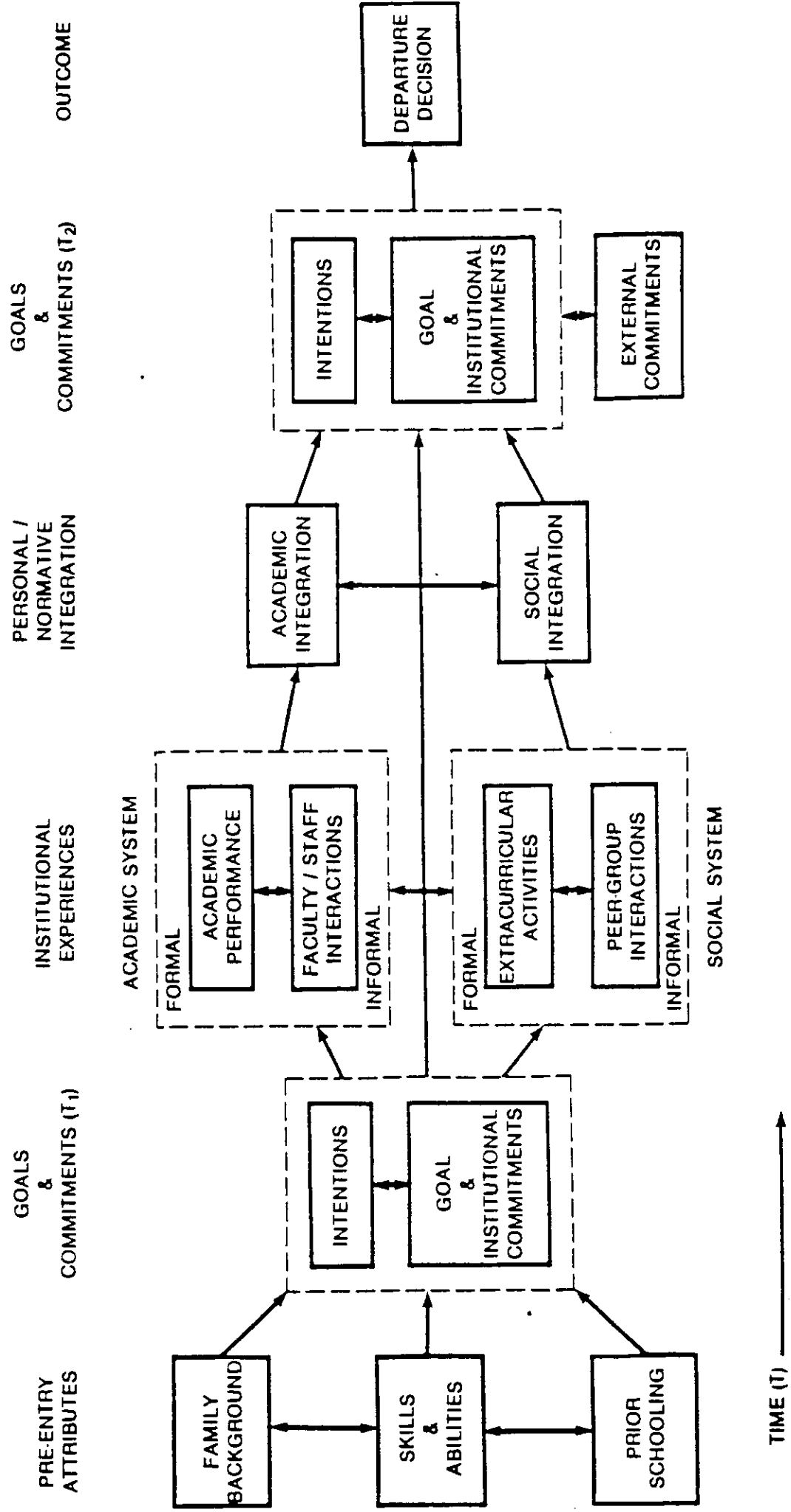
The research shows that academic advising programs are generally considered effective in increasing both student academic success and retention rate, if properly delivered. In particular, programs for higher risk students are considered valuable in fostering successful progress for students of special populations.

Although each student's path will be unique, Tinto's model can serve as a guide in understanding this journey through higher education. Models such as this, as well as research specifically addressing reasons for attrition, show that forces affecting persistence are complex. Finally, research on minority students deepens our understanding of retention, while highlighting an ever-growing population of students.

This study focuses on one program geared to increase student academic achievement and retention at one particular institution. However, by carefully applying the concepts presented herein to other situations, we come to a stronger comprehension of why students leave, and why they stay, in American higher education.

APPENDIX TWO:

Tinto's Model of Student Departure



APPENDIX THREE:

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APPENDIX FOUR:

Survey Form for Interviews with
Non-returning Students

INTERVIEWS WITH NON-RETURNING STUDENTS

Name: _____
 Student Number: _____ Ethnic Origin Code: _____
 Access Participant? yes__ no__ Qtrs enrolled at WWU: _____

Hello. I am calling from the Academic Advising Center at Western Washington University. Our records indicate that you were enrolled at Western during the last three years, but you have left the University. Is that correct?

Our office is conducting a study to determine reasons why students leave Western. I would like to ask you a few brief questions regarding why you may have left. The majority of these questions simply require a yes or no answer. Please be assured that your responses will be held in confidence - you will not be identified by name in our study. Do you have about five minutes to answer these questions?

1. When you decided to leave Western, was it because you:
 - a) did not have enough financial aid yes__ no__
 - b) your classes conflicted with a job yes__ no__
 - c) couldn't get into the classes you wanted yes__ no__
 - d) wanted to transfer to another school yes__ no__
 (name: _____)
 If yes, was it because this school:
 - had an academic program not offered at WWU? yes__ no__
 - is closer to home? yes__ no__
 - was originally your 1st choice? yes__ no__
 - other reasons?
 - e) weren't ready for college yet yes__ no__
 - f) didn't know what you wanted to study yes__ no__
 - g) were disappointed in your grades yes__ no__
 - h) had difficulty studying yes__ no__
 if yes, was it because you:
 - had difficulty managing your time yes__ no__
 - needed stronger study skills yes__ no__
 - any other reasons?
 - i) experienced personal or family problems yes__ no__
 - j) had difficulty adjusting due to cultural or ethnic factors yes__ no__
 - k) did not like the Bellingham area yes__ no__
 - l) didn't feel like you fit in yes__ no__
 - m) had difficulty socially yes__ no__

2. Were there any other reasons why you decided to leave Western? yes ___ no ___ If yes, what were they?

3. What was the most important reason why you left Western?

What was the second most important reason?

4. From whom did you receive academic advice while at Western?
(If Access participant): Access Program ___
Faculty ___ Academic Advising Center ___
Other campus resource ___ (who? _____)
Parents ___ Friends ___
Other _____

Were you generally satisfied with advice you received:
(from the Access program? yes ___ no ___)
from Faculty? yes ___ no ___
from the Academic Advising Center? yes ___ no ___
from other campus resources? yes ___ no ___
If no to any of these, why?

5. Have you attended school elsewhere since leaving Western? yes ___ no ___
if yes, where? _____
community college or 4-yr school? _____

Are you attending school now? yes ___ no ___
if yes, where? _____
community college or 4-yr school? _____

If no, do you plan to go back to school in the future?
(at any school, not just WWU) yes ___ no ___

That is the end of the questions I have for you. Do you have anything you would like to add?

Thank you very much for your time and your insight. You've been very helpful. Good luck in the future!